

### Abstract

Disclosed are an electron beam irradiation apparatus and an electron beam irradiation method capable of easily curing at least part of a surface layer and/or a resin layer such as a light transmitting layer, etc. thereunder, each composed of materials that are hard to be cured by irradiation of ultraviolet rays, and capable of substantially uniformizing an integrated irradiation dose of electron beams over an entire irradiated surface. Disclosed also are a disc-shaped object manufacturing apparatus and a disc-shaped object manufacturing method capable of efficiently forming, on the disc-shaped object, at least part of a surface layer and/or a resin layer such as a light transmitting layer, etc. thereunder, each composed of materials that are hard to be cured by the irradiation of ultraviolet rays. An electron beam irradiation apparatus 1 comprises a rotary driving unit 17 for rotationally driving a disc-shaped object 2, a shield container 10 for rotatably accommodating the disc-shaped object, and an electron beam irradiation unit 11 provided in the shield container so that an irradiated surface on the surface of the disc-shaped object is irradiated with electron beams, wherein when the face 2b of the disc-shaped object is irradiated with the electron beams during its rotation from the electron beam irradiation unit, an irradiation beam intensity of the electron beams is set larger on the side of an outer peripheral surface 2d of the disc-shaped object in

the radial direction than on the side of an inner peripheral surface 2c.